Programme for an International Competition for the Phebe Hearst Architectural Plan of the University of California.

UNIVERSITY OF CALIFORNIA

Berkeley, California,
December 3, 1897.

The Trustees, appointed by Mrs. Phebe A. Hearst, hereby invite the co-operation of the Architects of the world in the preparation of a permanent, general plan of the buildings and grounds which are to compose the University of California, in Berkeley, (near San Francisco), California.

Dated at San Francisco, California,
December 3, 1897.

J. B. REINSTEIN,
JAMES H. BUDD,
WM. CAREY JONES,

Trustees of the Phebe Hearst Architectural Plan of the University of California.

I hereby guarantee the performance of all the conditions and covenants set forth in this Programme, to be performed by the Trustees of the Phebe Hearst Architectural Plan.

San Francisco, California, December 3, 1897.

PHEBE A. HEARST.

J. B. Reinstein, James H. Budd and Wm. Carey Jones, as Trustees appointed by Mrs. Phebe A. Hearst for the obtainment of an Architectural Plan of the buildings and grounds for the University of California, have deposited with the London, Paris and American Bank, Limited, at San Francisco, California, securities of the value of $50,000, as a fund to guarantee the performance by said Trustees of all their promises and covenants contained in the Programme for an International Competition for the obtainment of such Plan, which Programme is dated December 3rd, 1897.

The said fund of $50,000 to be paid over and delivered only upon the order of said Trustees or a majority thereof, and their successors in interest.

December 3, 1897.

London, Paris and American Bank, Limited,
San Francisco, California.

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INTRODUCTORY.

PREPARATION OF PROGRAMME.

In the preparation of the Programme for this co-operation the Trustees have been favored with the counsel and aid of eminent architects and artists, to all of whom they desire hereby to acknowledge their grateful obligation.

METHOD OF CO-OPERATION.

The method adopted by the Trustees for obtaining the benefit of this co-operation, while partaking in some degree of the nature of the usual competition, (by which name it will be designated herein), will possess all the main features of an actual co-operation of the best architectural and artistic talent available for the purpose in view, in this regard among others that the authors of all the plans found meritorious by the jury will be recompensed.

DATA CONCERNING THE UNIVERSITY OF CALIFORNIA.

The University of California was founded under an Act of the Congress of the United States, passed in 1862. It received a large land grant and subsidies, and still receives, in addition, a yearly income from the United States. The Charter of the University was granted to it by the State of California, in 1868, and a part of its income is derived from a tax of two cents on each $100 of the taxable wealth of the State, which income is, of course, constantly increasing in amount.

It will thus be seen that the University has both a national and a State character. Its present resources are valued at about nine million dollars, and, in addition to the income from part of these resources, it has a yearly income of about $40,000 from the United States, and about $250,000 from the State tax. The University has trebled its number of students in six years; it had 777 in 1891, while it has 2,300 now, and it will probably have 5000 after ten years, which is the number of students for whom the architectural plan should be calculated.

GENERAL OBJECTS OF THE COMPETITION.

The University of California possesses extensive and well located grounds; besides, it has at its disposal sufficient resources to begin the erection of a great center of learning. But it will require many years to complete the work in all its parts, and it is to be expected that the Programme of each division will undergo some modifications before the general work is completed. The special arrangements of each division or department cannot, therefore, be settled at the present time.

On the other hand, confusion would arise, and the possibilities offered by a beautiful site would be lost, if the preliminary work were undertaken without a comprehensive idea of the whole, and without a previously formulated general plan.

Only the adoption, from the start, of a well conceived general plan will permit the promoters to proceed wisely and with confidence in the creation, successively, of the various Colleges and departments which are to compose the University.

It is this general outlining of the work, destined to remain the guiding thought of the entire undertaking, which constitutes the object of the present competition.

A DOUBLE COMPETITION.

The competition will be double, *i. e.* preliminary and final.

RULES OF PRELIMINARY COMPETITION.

ARTICLE 1. The architects of all countries are invited to participate.

PLACES OF DEPOSIT OF THE PROGRAMME.

ARTICLE 2. The University of California entrusts the distribution of this Programme and of the other documents and materials necessary for the competitors, as follows:

Argentine Republic

Minister of Foreign Affairs, Buenos Ayres.

Austria-Hungary

Architecten-Club, Künstler-Haus, No. 9 Lothringer Strasse, Vienna.

Magyar Merñök és Epitész, Egyesület ker Ujvilagutcza 2, Budapest IV, Hungary.

Belgium

Société Centrale d'Architecture de Belgique, Palais de la Bourse, Rue de Midi, Brussels.

Brazil

Minister of Foreign Affairs, Rio de Janeiro.

Canada

Mr. A. T. Taylor, Secretary R. I. B. A., 43 St. Francois Xavier Street, Montreal.

Chile

Minister of Foreign Affairs, Santiago.

China

Minister of Foreign Affairs, Pekin.

Denmark

Dansk Architekt Forening, Nybrogade 26, Copenhagen.

France

Société Centrale des Architectes Français, Boulevard Saint Germain 168, Paris.

Germany

Münchner Architekten und Ingenieur-Verein, c/o. Herrn Kreisbaurath Richard Reverdy, No. 8 Weinstrasse, Munich.

Vereinigung Berliner Architecten, c/o. K. E. O. Fritsch, No. 21 Keith-Strasse, Berlin.

Great Britain and Colonies

Royal Institute of British Architects, 9 Conduit Street, Hanover Sq., London, W.

Holland

Société Architectura et Amicitia, c/o. K. de Bazel, Architecte, 118 Nicolaas Beetsstraat, Amsterdam.

Italy

Cultori di Architettura, Via de Burro, 151, Rome.

Collegio degli Ingegneri ed Architetti, No. 1 Via Cernaia, Milan.

Japan

Minister of Foreign Affairs, Tokio.

Mexico

Señor Ingo. Don M. Fernandez Leal, Presidente de la Asociacion de Ingenieros y Arquitectos, City of Mexico.

Norway

Norske Ingeniör Arkitektsforening, Christiania.

Portugal

Real Associaçao dos Architectos Civis e Archeologós Portuguezes, Lisbon.

Roumania

Societatea Technica, Calea Victorier, Bucharest, Roumania.

Russia

Société Imperiale des Architectes de St. Petersbourg, St. Petersburg.

Cercle des Architectes de Moscou, Moscow.

Spain

Real Academia de San Fernando, Madrid.

Sweden

Svenska Teknologföreningen, Stockholm.

Switzerland

Société Suisse des Architectes et Ingenieurs, c/o. M. Geiser, Zürich.

Turkey

Son Excellence le Ministre de l'Instruction Publique et des Beaux Arts, Constantinople.

United States of America

Chapters of American Institute of Architects, Boston, Brooklyn, Buffalo, Chicago, Cincinnati, Cleveland, Denver, Detroit, Indianapolis, Kansas City, Los Angeles, Lynchburg, Va., New York, Philadelphia, Pittsburgh, Providence, Rochester, San Francisco, Seattle, St. Louis, Washington, and the Mayors of the other principal cities.

Distribution of the Programme.

ARTICLE 3. In order to assure to all competitors the same period of time, a sealed parcel containing copies of the Programme, plans of the grounds, and other materials will be deposited at each of the above named addresses.

Date of the Opening and Closing of the Competition.

These parcels will be opened, in the presence of possible competitors who may desire to attend, on the 15th day of January, 1898, at noon, at the various distributing points in Europe, and, in order to roughly equalize the time of all competitors, on the 5th day of January, 1898, at noon, at all other distributing points.

From this day on, copies of the Programme and maps will be handed or sent to all architects who may ask for them.

The competition will be closed on the 1st day of July, 1898, at noon, as provided in Article 4.

The Sending of the Plans.

ARTICLE 4. Before this date (July 1, 1898), the plans must be deposited by the competitors with the United States Consul at Antwerp, Belgium. The date of receipt of each plan must be written in ink on the tube containing it, by said Consul.

All the plans will be enclosed (rolled) in an impermeable tube, sealed, bearing the printed address: "UNIVERSITY OF CALIFORNIA, PHEBE HEARST ARCHITECTURAL PLAN," and each of such plans must bear on it a device or particular sign, identical in every respect with that which will be enclosed within a sealed envelope containing the name and address of its author, and hereinafter referred to.

Accompanying the plans, and securely fastened thereto, and inside of the tube above referred to, which shall be tightly sealed, are to be sent three envelopes, all three sealed:

Envelope No. 1, sealed, containing the name and address of the author, and a facsimile of the device upon his plan, superscribed: "NAME AND ADDRESS OF AUTHOR AND FACSIMILE OF DEVICE ON PLAN," "TO BE OPENED ONLY IN CASE PLAN IS ACCEPTED."

Envelope No. 2, sealed, containing envelope No. 1. This envelope No. 2 is also to bear upon it a facsimile of the device of the author, and is to be superscribed: "THE NAME AND ADDRESS OF THE PERSON TO WHOM THE PLAN IS TO BE SENT, IF REJECTED, MUST BE HEREON INSCRIBED," "TO BE OPENED ONLY IN CASE PLAN IS ACCEPTED."

Envelope No. 3, sealed, containing envelope No. 2, and superscribed: "COMPETITION FOR THE UNIVERSITY OF CALIFORNIA," "UNITED STATES CONSUL, ANTWERP, BELGIUM."

This envelope, containing envelope No. 2, is to be securely attached to the author's plan.

If the plans be rejected, envelope No. 2, unopened, is to be returned with the plans to the address indicated on envelope No. 2.

These envelopes will be distributed with the other materials by the Trustees.

Jury.

ARTICLE 5. The Jury will be international.

For the Preliminary Competition it will be composed of five members, *viz.:* Messrs.

R. Norman Shaw, 6 Ellerdale Rd., Hampstead, London.

J. L. Pascal, 8 Boulevard St. Denis, Paris.

Paul Wallot, 6 Hähnel-Strasse, Dresden.

Walter Cook, 674 Broadway, New York, N. Y.

J. B. Reinstein, 217 Sansome Street, San Francisco, California.

The members of the Jury shall have no knowledge of the authorship of any plan, nor shall they counsel any competitor, nor take part in any way in this competition, except as members of the Jury. In case of the inability of any juror to act as such, the remaining jurors shall select a juror to act in his place.

Proceedings of the Jury.

ARTICLE 6. The Preliminary Competition will be decided at Antwerp, Belgium, and will not be preceded or followed by any public exhibition whatever.

The retained plans will not be classified; the Jury will proceed by elimination.

The decisions of the Jury will be without appeal. The grounds for their decision will not be given.

Judgment will be passed simultaneously on all the plans.

Retained Plans.

ARTICLE 7. The maximum number of plans to be retained is not settled in advance. The Jury will retain all the plans which it shall deem worthy of being kept, but at least ten.

The plans retained from the Preliminary Competition will become the property of the University of California.

The name of a successful author will not be published without his consent.

Premiums for the Preliminary Competition.

ARTICLE 8. The authors of plans retained will receive a premium of $1500 each, if only ten plans are retained; not less than $1200 each, if not exceeding fifteen plans are retained; and not less than $1000 each, if more than fifteen plans are retained, all payments being conditioned on the next Article.

Payment of Premiums.

ARTICLE 9. The above stated premiums will be paid to the authors of the retained plans as follows:

1st. *A third* within the month following the judgment.

2d. *Two-thirds* after the execution and delivery of the final plan.

Consequently, the author of a retained plan, who may not enter the Final Competition, will be entitled to only one-third of the premium; the balance due him shall be forfeited to the Trustees.

Return of Rejected Plans.

ARTICLE 10. The rejected plans will be returned with the sealed envelope containing the name of the author, to the person designated on envelope No. 2, (Article 4), charges prepaid.

RULES OF THE FINAL COMPETITION.

Competitors.

ARTICLE 11. None but the competitors whose preliminary plans have been retained by the Jury of the Preliminary Competition will be allowed to take part in the Final Competition.

They will be notified individually, by registered letter, of their admission to this second competition.

Possible Modification of the Programme.

ARTICLE 12. Although the Programme of the Final Competition is, in the main, determined, and the competitors in the Preliminary Competition are hereby apprised of it, still the Jury of the Preliminary Competition will have the right to make alterations in the Programme for the Final Competition. The Jury will request suggestions and ideas in this connection from the architects taking part in the Final Competition.

The letter of notification will inform them as to whether the Programme has been modified or not, and, if it has, will state the nature of the modifications.

Journey of Competitors to San Francisco.

ARTICLE 13. Competitors successful in the Preliminary Competition, wishing to study the site of the proposed buildings on the ground, will receive first-class transportation and expenses for the journey from their places of residence to San Francisco and return.

They should be provided with credentials, so that they may be identified in San Francisco.

The competitors shall, within the fortnight following the reception of the letter of notification prescribed in Article 11, state whether they intend going to San Francisco, and at what time, by a letter addressed to the Trustees.

Closing of the Competition.

ARTICLE 14. Competitors successful in the Preliminary Competition will have not less than six months after the decision in the Preliminary Competition, within which to send in their plans for the Final Competition.

The letter of notification which the competitors will receive (see Article 11), will specify the date on which the plans should be deposited.

The same conditions regulating the transmission of plans for the Preliminary Competition, will be applied in the transmission of the plans for the Final Competition, except that all such plans must be sent to the Secretary of the University of California, at Berkeley, California, and that the envelope No. 1, enclosing the name and address of the author and the facsimile of the device on his plan, must contain also such references, certificates and data as will indicate the ability of the architect for the execution of the work and the carrying out of his plan.

Devices.

ARTICLE 15. The plans are to be designated by devices or distinctive signs, reproduced on the envelope No. 2 joined to the plans sent; but the competitors must not use the same devices as those used by them for the Preliminary Competition.

Jury.

ARTICLE 16. The Jury of the Final Competition will be composed of:

1st. The five members of the Jury of the Preliminary Competition.

2d. Of four architects who will be chosen by the Trustees of the Phebe Hearst Architectural Plan, aided by lists of names proposed by the competitors successful in the Preliminary Competition.

To that end, every such competitor will, on receipt of the registered letter of notification (Art. 11), send to the Trustees, under a sealed envelope, a list of five names of architects.

After counting these votes, the above Trustees will decide on the names of the four additional jurors (having previously ascertained their acceptance), never losing sight of the international character which this Jury must preserve. In case of the inability of any juror to act as such, the remaining jurors shall select a juror to act in his place.

Public Exhibition.

ARTICLE 17. The preliminary plans retained, and those presented at the Final Competition, will be exhibited publicly at the Mark Hopkins Institute of Art, in San Francisco, California.

In order, furthermore, to secure for the contestants, as much as possible, publicity of the competition, all the plans will be photographed on the same reduced scale.

A series of these photographs will be forwarded to each of the Societies of Architects mentioned in Article 2, with a request to give them a public exhibition.

Every author will receive, personally, two proofs of the photographs of all these plans.

Liberty to Modify the First Plan.

ARTICLE 18. It is to be understood that the competitors will have full liberty either to preserve or to modify the composition which they will have presented at the Preliminary Competition.

Premiums.

ARTICLE 19. A total sum of at least $20,000 will be devoted to premiums for the best plans. At least $8000 of this sum will be awarded to the plan classed as No. 1.

At least five of the plans will be awarded a premium.

But the Jury retains the right of distributing the total allotment of money among a greater number of plans, taking into consideration the number and merit of the compositions submitted to its examination.

Consequently, the Jury will first decide upon the amount of the second premium, then of the third, and so on, until the sum total of at least $20,000, as stipulated above, is reached. After this has been done, the premiums will be awarded by a secret ballot, calling for an absolute majority.

Should it happen that two candidates receive the same number of votes for a particular premium, the premium voted upon, and the next in order, will be added together and their sum total divided evenly between the two candidates.

If this parity should happen for the last premium, this will be divided evenly between the two candidates.

Opening of the Sealed Envelopes.

ARTICLE 20. After the vote described in Article 19, the envelopes will be opened and the successful competitors announced.

Officers of the Jury.

ARTICLE 21. The Jury will designate its President, Vice-President, Secretary and Recording Secretary.

A record will be kept of all the proceedings.

Report of the Jury's Proceedings.

ARTICLE 22. The Recording Secretary will prepare a report, which must be signed by the Jury and submitted to the Trustees, and which will state the reasons for the judgment rendered, the Jury's estimates of the merits of the rewarded plans, together with such suggestions and advice as they may deem useful in the ultimate construction of the buildings.

Ultimate Execution of the Work.

ARTICLE 23. The University of California reserves for itself the right of entire control and direction in the matter of the execution of the work.

The rewarded plans will become its property, and it will be at liberty to select therefrom any idea that it may desire.

The Jury, however, after taking into consideration the value of the plan as well as the references and certificates that the competitors will have enclosed in the envelope containing their names, will declare whether the architect, author of the plan classed as No. 1, seems to offer the guarantees which would justify his being entrusted with the execution of the earlier work to be undertaken.

The Jury may extend its opinion so as to show, in like manner, its appreciation of the other rewarded plans.

Contract between the University and the Architect entrusted with the execution of any part of the work.

ARTICLE 24. Should the University wish to confide the direction of the work to the author of the first-prized plan, or, if he decline, to one of the architects having received a premium, a contract for the direction of the work will be drawn between the University and the architect, conditioned upon the suggestions and advice of the Jury; it being well understood that, if such a contract is made, it will be a desirable consequence of the competition, but in no wise a condition thereof.

Returning of Plans not Rewarded.

ARTICLE 25. The unrewarded plans will be returned according to the stipulations in reference to the rejected plans of the Preliminary Competition.

Decisions of the Jury.

ARTICLE 26. The Jury's decisions will be without appeal. The fact of a candidate taking part in the competition implies his acceptance of all the conditions of the present specifications and Programme.

Expenses.

ARTICLE 27. The cost of distribution of the premiums, of exhibitions, judgments, delivery of the Programme and materials, and all expenses other than those for the preparation and submission of the plans, will be incurred by the Trustees of the Phebe Hearst Architectural Plan.

Publication of the Report.

ARTICLE 28. The report of the Jury's proceedings will be published in the cities of the Societies mentioned in Article 2.

The name of a competitor will not be published without his consent.

University of California.

PROGRAMME OF THE ARCHITECTS.

I.

General Propositions.

By "University" is meant the collection of all the buildings necessary for the teaching of higher branches of learning.

Each department of instruction will have, as nearly as may be, its own building or buildings. These buildings will be erected successively as the funds for the purpose become available, and, under all circumstances, according to a previously formulated plan of the whole University.

The plan is to include provision for the residence of the students.

Important divisions for the common use and service are to be provided.

Provision for free access and easy communication, both open and covered, within the University limits, is an essential part of the Programme.

The desire is that the general arrangement should assume an imposing aspect, of a serious and noble character, that will at the same time harmonize with the picturesque nature of the grounds, their situation and topography.

II.

Grounds.

The City of Berkeley, near San Francisco, is situated on the shore of a large Bay, called the Bay of San Francisco, nearly opposite the straits, known as the Golden Gate, which connect the Bay with the Pacific Ocean. Resting against a mountainous background, the city is situated on a gentle slope, the rise increasing as it recedes from the Bay.

The location reserved for the University begins about two miles east of the shore-line of the Bay, and extends beyond the city, on hilly ground. While the principal entrance to the University grounds is at present Center street, on the western boundary, architects are free to provide other entrances, either for the principal approach, or for side ones.

There is a ferry from San Francisco to Berkeley at the foot of University Avenue, and a railroad from San Francisco to Berkeley, and other railroads, as shown on the topographical map accompanying this Programme.

The grounds of the University are represented on the maps accompanying this Programme:

1st. On the small general map, showing their situation with reference to the City of Berkeley.

2nd. On the topographical plan, the red line indicating their boundaries.

The architect, however, need not be restricted by the indicated northern boundary, but, if his composition so require, may extend the northern boundary to the nearest brook or watercourse. This watercourse will be found delineated on the small general map.

The perimeter of the grounds is irregular; their greatest length is about 1870 meters, extending almost due East and West, and their greatest width about 770 meters.

The slope of the grounds is marked on the plan by contour lines, in English feet. The least altitude is 198 feet, (60.3 m.), on the side nearest the shore of the Bay, the highest, 964 feet (293.6 m.), making a difference in the level of 766 feet (233.3 m.) (The English foot = .3046 m.)

In the grounds there are two brooks which join before leaving the grounds.

The grounds are partly planted with beautiful trees, which should, as far as possible, be preserved; the trees which are to be especially preserved are those within one hundred feet of the brooks.

There are also various buildings now standing on the grounds which need not be taken into consideration; nor need present paths or roads be considered.

The soil is generally firm and offers no particular difficulties for foundations.

III.

General Grouping of the Programme.

The general scheme will comprise:

1st. Provision for the general and collective purposes common to all the departments, as follows:

Administration,
University Library,
University Museum,
Auditoriums,
Military Establishment,
Gymnasia,
Printing Establishment,
Habitation,
Club Houses,
Infirmary,
Approach and Communication.

d. Buildings for all things pertaining to the general service of the several departments, such as central power, heat and light station, postal, telephone and telegraph systems, etc.

3d. The Departments of Instruction, so far contemplated, number fifteen, and the buildings for their accommodation differ much as to their relative size and importance.

These departments are as follows:

A. *Higher Historical and Literary Instruction.*

1. Department of Philosophy and Pedagogy.
2. " " Jurisprudence.
3. " " History and Political Science.
4. " " Ancient and Modern Languages.

B. *Higher Scientific Instruction.*

5. Department of Mathematics.
6. " " Physics.
7. " " Astronomy.
8. " " Chemistry.
9. " " Natural History (Zoology, Botany, Geology and Mineralogy).

C. *Technical and Applied Instruction.*

10. Department of Fine Arts.
11. " " Agriculture.
12. " " Mechanical Engineering.
13. " " Civil Engineering.
14. " " Mining.
15. " " Draughting and Graphical Analysis.

All are to be so connected as to insure easy communication, both open and covered, between the groups or buildings, and to contribute to the stately aspect of the whole.

IV.

COMPOSITION OF EACH GROUP.

Particular Programmes.

Particular and Collective Departments.

1. Administration.

The administration will be accommodated in one or several buildings.

It will comprise:

The entrance to the University, with the janitor's lodge, etc.

The building or buildings for the offices of the President and Secretaries, and for the meetings of Regents and Professors.

Reception rooms for officers.

Ante-rooms, Committee rooms.

Hall of records.

Cash room, with its adjuncts.

Post-office.

Divers storage places for material and maintenance, etc.

Store for the sale of books, stationery and sundry articles and furnishing material for the students.

2. University Library.

The building for the University Library should have a capacity for 750,000 volumes. It will include:

A large reading room.
Hall for papers and periodicals.
Conversation parlor.
A fair number of private study rooms for individuals and for small classes.

3. University Museum.

This division, open to the students and the public, should make ample provision for all the departments usually included in a modern general museum, such as:

Art,
Antiquities,
Ethnology, etc.

4. Auditoriums.

There are to be two Auditoriums. Each should be adapted to lecture, concert and theatre purposes, and provided with reception parlors.

1. A large Auditorium, of a capacity of about 5000 people.
2. A small Auditorium of a capacity of about 1500 people.

A garden, specially arranged for the purposes of celebrations and receptions, will complete this division.

5. Military Establishment.

All the able-bodied male students receive military instruction twice a week.

This division will comprise:

1 lecture room for 300 students,
3 lecture rooms for 50 to 100 students.
A special library, with geographical and other maps.
A museum of important ancient and modern arms.
A gallery of models and drawings of military works.
An armory to contain 2000 stands for arms.
Sheltered courts for drill in rainy weather, for

12 Companies of Infantry, of 50 cadets each,
1 Company of Engineers, " cadets,
1 Squadron of Cavalry, " "
1 Battery of Artillery.

A drill field, for exercises in the open air (see 6, Gymnasia).

6. Gymnasia.

Under this name are designated all of the spaces and structures to be provided for physical culture and athletic exercises.

These exercises are open to the students of both sexes.

The gymnasia are to occupy a large space, as level as possible.

They will comprise:

Two large halls for various exercises, each provided with about 200 dressing-rooms, and 100 shower baths: one hall for the young men, and the other for the young women. Ample provision for lockers is needed.

Two swimming tanks of about 400 square meters each, with numerous dressing rooms and adjuncts.

A large drilling and exercising field in the open air, for athletic games, with stands and seats.

This athletic ring should be treated in a monumental and majestic style.

Various adjuncts for this whole division.

7. Printing and Publishing Establishment.

The building for this purpose will include offices, composing room, press room, proof room, bindery, electrotyping rooms, store-rooms, etc.

Power will be supplied from the Central Station.

8. Habitation.

In buildings specially arranged for habitation, will be found lodgings of various importance, for

1. The head of the Material Department and his family.
2. An Assistant Doctor (in the vicinity of the Infirmary).
3. A Chief Superintendent, and several Assistant Superintendents.
4. Employés and workmen, gardeners, engineers, firemen, etc.
5. The buildings for lodging the Students, the number of whom must be estimated at 3000.

Note. The proportion must be about the same for each sex. The rooms for the students should be arranged in suites, of two and three rooms each, with a sufficient number of bath-rooms, lavatories, etc., on each floor.

Two dining establishments, disconnected from, but accessible to, the Students' dwelling houses, should be provided. They should include all the adjuncts of a well-equipped kitchen, with a yard and special entrance.

9. Club Houses.

1. Club Houses for Undergraduates. There should be two, in connection with the gymnasia.

2. A Club House for the Alumni of the University and for the Graduate Students.

3. Professors' and Officers' Club House.

Each of these should be provided with all the appointments of the most approved modern club house.

10. Infirmary.

The Infirmary is to be situated in a retired place, and to contain :

Twenty sick rooms, and a few isolated rooms for contagious diseases.
A covered court or promenade.
A garden.
Bath and soiled linen room.
Physician's reception and consulting room.
Drawing-room for convalescent patients.
Dining-room for convalescent patients.
Kitchen and pantry.

A section for common use will comprise :

A Doctor's private rooms.
Pharmacy and adjuncts.
Apartments for nurses of both sexes, stewards and employés.

11. Approach and Communication.

The large area covered by these buildings, and the configuration of the land, require special provisions to insure easy communication. Within every group of the Programme there will be required means of communication covered by porticos, galleries or corridors, interior staircases, elevators, etc.

Between the various groups, covered means of communication are equally desirable.

Approaches should be provided for pedestrians, by means of paths and stairways, or porches, which should contribute to the monumental effect ; for carriages, automobile vehicles and bicycles, by means of gentle grades ; lastly, mechanical means of transportation may be provided which could rapidly connect the various groups.

This whole arrangement, naturally subordinate to the general conception of the *ensemble*, does not allow of more detailed directions.

12. Buildings for the General Service.

All important divisions require numerous adjuncts. The most essential to provide are:

A central plant for the production of power, heat and light; sheds for machines, coal yards, etc.

Divers workshops for repairs and housing of materials.

Telegraph and telephone stations.

Pneumatic service.

Warehouses for raw and manufactured materials.

A fire-department station.

A station for the maintenance of buildings and roads.

The necessary appurtenances for gardening purposes.

Carriage houses for automobile vehicles, bicycles, conveyances for the general service, and stables for a few horses.

This division does not constitute a group; the architects will have the choice of either concentrating it or distributing its parts at various points of the domain; all according to the exigencies of their composition.

13. The Departments of Instruction in General.

The several Departments of Instruction should be provided with the appurtenances necessary for their management, without being dependent on any other department.

The Programme can, at best, only point out the general outlines of the plan, leaving it to the architects to study the latest improvements, and to complete the Programme by presenting any propositions which they may suggest, by drawings, or written descriptions.

The several buildings should be provided with sufficient ground for such extensions as may become necessary in the future.

They each have: their general adjuncts, such as the janitor's lodge, cloak-rooms, interior offices, heating apparatus, lavatories, etc.

Offices for the Professors and Assistant Professors.

Department libraries for advanced students.

Several study-rooms for the accommodation of about ten students each.

The *Seminarium*, quarters reserved for higher studies, consisting of separate rooms planned according to the nature of the studies.

These various elements will be more or less important according to the number of students and the nature of the studies. But they are necessary in *all* the buildings or departments, and the Programme will not mention them again. It will be confined to the description of the special features which distinguish each department.

14. Department of Philosophy and Pedagogy.

1 lecture room for 400 students.
10 " rooms for 30 to 60 students.
12 laboratories for experiments.
4 small isolated rooms for more delicate work.

15. Department of Jurisprudence.

1 lecture room for 200 students.
10 " rooms for 30 to 75 students.
4 " rooms for 15 to 30 students.

16. Department of History and Political Science.

1 lecture room for 500 students.
3 " rooms for 200 "
10 " " " 30 to 75 students.

Special features: Study and lecture rooms, in which each student will have a table large enough to spread out his maps and charts.

Gallery of geographical maps, statistical tables, etc., etc.

17. Department of Ancient and Modern Languages.

1 lecture room for 500 students.
3 " rooms for 200 "
50 " " " 30 to 100 students.

Besides the parts common to all the departments, this one will present special requirements. It comprises at present five divisions of about equal dimensions, for

The English language.
The Greek and Latin languages.
French and sister languages.
German and sister languages.
Semitic languages; the Chinese and Japanese languages.

Each of these divisions forms a sort of smaller department of its own, possessing more or less of the elements as indicated in No. 13 above.

18. Department of Mathematics.

1 lecture room for 150 students.
10 " " " 40 to 75 students.
4 " rooms for 15 students.
A room for collection of models.

19. Department of Physics.

1 lecture room for 300 students.
1 " " for 200 students.
8 " rooms for 25 to 50 students.

These lecture rooms are to be connected with laboratories for preparation of experiments, and store rooms.

25 laboratories for special scientific investigations.
6 laboratories for 60 students each.

Each of the laboratories will have its necessary adjuncts; rooms for the assistants, glassware, scales, store-rooms and annexes.

A tower for vertical experiments.

A long gallery for optical experiments.

A cabinet or collection of physical instruments and other objects relating to this science.

Machine shop for construction and repairs of apparatus.

Power to be applied from Central Station.

20. Department of Astronomy.

The large observatory of the University (Lick Observatory) is situated at Mount Hamilton. Provision is to be made here for a smaller observatory with its adjuncts.

1 lecture room for 150 students.
2 " rooms for 40 students.
3 " " for 15 students.

Special features: This department must be placed in a location most favorable for astronomical observations.

It will comprise:

A complete observatory for astronomy.

An observatory of meteorology.

A computing room.

Apartments for three Astronomers and their families.

21. Department of Chemistry.

The building or buildings for Chemistry should provide for three different branches: *a*) General and Theoretical Chemistry; *b*) Medical and Pharmaceutical Chemistry; *c*) Technical and Applied Chemistry.

1 lecture room for 300 students.
1 " " for 100 students.
1 " " for 50 students.

These lecture rooms are to be connected with laboratories for preparation of experiments, and store-rooms.

5 laboratories for 50 to 100 students.
6 " for 25 to 50 students.
10 " for 10 to 25 students.
10 " for special scientific investigations.

Distilling, steam bath and drying room.

Store-rooms for apparatus and chemicals convenient to laboratories. Other larger store-rooms for large stocks of supplies and acids. Weighing rooms with North light.

Rooms in basement for work involving constant temperatures, Thermochemistry, Gas Analysis, Refined Measurements, etc.

Fire-proof rooms for furnaces, bombs and explosives.

Dark rooms for Photography and similar experiments.

Rooms not in direct connection with main rooms, for ill-smelling and poisonous gases.

Isolated rooms for storage of dangerous and explosive substances.

Room with North light for microscopical work.

Room for animals for toxicological experiments.

Rooms where chemical operations on a large scale can be conducted, manufacturing acids, glass, metals, organic bodies, soap, dyes.

Two glass-covered courts and space for outdoor work.

Boiler rooms, work rooms with power from Central Station and cool rooms.

A large museum room for apparatus, and a smaller one for chemicals.

22. Department of Natural History.

1 lecture room for 500 students.
3 " rooms " 200 "
6 " " " 50 "

This division comprises a common section (see No. 13 above), to be used for the general studies common to all, and has three subdivisions:

Zoology, Botany, Geology and Mineralogy.

The common section calls for no particular description. It embraces all the collective studies on Natural History in general.

Each of the three above-named subdivisions forms, moreover, a complete whole, comprising also the general features indicated under No. 13 above.

SPECIAL FEATURES:

Zoology.

Laboratory of Physiology.
" " Microscopy and Histology.
" " Biology — animals in observation.
Various adjuncts of the Laboratories.
Dissecting rooms.
Vivisection rooms.
Rooms for preparing the experiments for making casts, etc.

These laboratories and adjuncts are to be devoted to the general studies on animals.

The Department of Zoology comprises, in addition, studies on animals considered by classes, thus: Ornithology, Herpetology, Icthyology, Entomology, Conchology, etc., etc., and, in general, all the distinctive branches of Zoology, each one with its respective store rooms and adjuncts, such as aviaries, cages, aquariums, places of isolation, etc., etc.

Large Museum of Zoological collections, in three sections:
Zoology (skeletons, models and stuffed specimens).
Comparative Anatomy.
Palaeontology.

Botany.

Microscopical laboratories, lighted from the North.

Laboratories for Vegetable Physiology, with grounds for experiments.

Herbarium and collections.

In the vicinity a botanical garden, with green-houses.

Note. This Botanical Garden is only to be used for the most ordinary plants. Provision can be made for a more important garden, outside, and in the neighborhood of the University grounds.

Geology and Mineralogy.

Laboratories of Geology.

Laboratories of Mineralogy, with motive power for experiments.

Gallery for collections.

Glass enclosure to receive large specimens.

Workshops, storage and stock-rooms for preparations, polishing, etc. Power from Central Station.

23. Department of Fine Arts.

This division, designed for the special teaching of the Fine Arts, embraces, in one whole, the following Programme :

1st. A department of Painting, Sculpture, Architecture, (Drawing and Modelling class-rooms, exhibition and competition halls, galleries of models, studios, library, etc.) with a special division devoted to Decorative and Industrial Art.

2d. A department of Music, with all its elements. (Class-rooms, lecture and study rooms, etc. Hall for exercises in common.)

24. Department of Agriculture.

1 Lecture room for 200 students.

6 " rooms for 25 to 100 students.

General chemical laboratory.

Special chemical laboratories.

Viticultural laboratory.

Entomological laboratory.

Bacteriological laboratory.

Museum for soils, seeds, agricultural products, ancient and modern agricultural implements.

Cellars, store-rooms, document rooms, etc.

Large sheds for the practical demonstration of the use of agricultural implements (motive power).

Experimental field, in addition to the agricultural grounds outside of the domain of the University.

25. Department of Mechanical Engineering.

This department includes Electrical Engineering.

1 lecture room for 150 students.
2 " rooms for 100 students.
2 " " for 50 students.
3 " " for 25 students.
3 large laboratories for 60 students.
15 experimental laboratories for 10 to 20 students.
5 special drawing rooms.
3 or 4 workshops, similar to those of large factories, capable of accommodating various kinds of machinery, and where about 60 students may work at a time.

Rooms for collections and models.

A special engine and boiler room, in addition to power supplied from Central Station.

26. Department of Civil Engineering.

Space and accommodations required for this department are similar to and in the proportion of one-half to two-thirds of those in the Department of Mechanical Engineering.

Power supplied from Central Station. No special engine and boiler room required.

27. Department of Mining.

Space and accommodations required for this department are about the same as for the Department of Mechanical Engineering.

Power supplied from Central Station. No special engine and boiler room required.

28. Department of Draughting and Graphical Analysis.

6 Draughting rooms for 60 students.
3 " " for 20 students.
A model room.

Provision for this department may be made by proportionally enlarging the building for the Department of Mathematics.

General Observations.

The preceding directions are intended to give a general idea of the scope and character of the University and are not intended to control the details of the plan of the architect, especially in the preliminary competition.

The distribution of the groups on the grounds, as well as their respective proportions, are left to the judgment of the architects.

There are no limitations on the materials to be used. California abounds in beautiful and durable building stones.

The attention of the competing architects is particularly called to the importance of a monumental and artistic aspect of the roofs. Indeed, the marked declivity of the ground creates special conditions of perspective, and the spectator, placed on the summit of the grounds, will have the view of the roofs on successive lower elevations.

The superb panorama of the Bay of San Francisco can be seen from the grounds at the altitude thereon of about 260 English feet.

V.

PRESENTATION OF THE PLAN.

Preliminary Competition.

Each plan will comprise:

1. A general plan, showing the ground floor of all the buildings, on the scale of the topographical chart accompanying the Programme (100 feet to the inch, or 1/1200 scale.)

This plan will indicate the buildings in detail, and not in mass.

The purpose for which each group is designed, shall be written in English on the plans, and adjoining the group, and not in marginal notes, as for example: "Administration," "Chemistry," "Mining," etc., etc.

The plans will show the contour lines of the topographical chart.

2. A general elevation, on the same scale as the plan.

3. General section on the same scale.

The elevation and the section are to be taken at such points as in the judgment of the author will best illustrate his plan.

Final Competition.

For the Final Competition, the Jury of the Preliminary Competition will determine what drawings are to be required from the competitors in order to show their understanding of the general composition, and of the character of the study (des qualités d'étude).

For that purpose they may be required to give whole divisions or sets of buildings, and also a particular study of one of the groups that may be designated by the Jury after the Preliminary Competition. The Jury will also determine the more detailed Programme of this group; but subject to the above power on the part of the Jury the plans required in the Final Competition will be:

1. A general plan, showing the ground floor of all the buildings.

2. A general section.

3. A general elevation. The section and elevation are to be taken at such points as in the judgment of the author will best illustrate his plan.

4. A general perspective.

Just as in the Preliminary Competition, the plans of the buildings will be made in detail, and the inscriptions written in English, indicating the groups, will be reproduced on the plan itself, and not in the margin.

No title, inscription, or annotation of any kind, with the exception of the device, will be allowed on the drawings in any language but English.

The drawings must all be original; no reproductions by photographic or other processes will be permitted.

Maps, Casts and Photographs.

Maps, photographs, casts, and necessary documents can be obtained from Mr. B. R. Maybeck, No. 7 Rue Honoré Chevalier, Paris, France, or from the Trustees.

Information.

All requests for information should be addressed to

TRUSTEES PHEBE HEARST ARCHITECTURAL PLAN
UNIVERSITY OF CALIFORNIA
217 SANSOME STREET
SAN FRANCISCO, CALIFORNIA.

Abstract of Climatic Conditions

at the University of California, during the years 1888 to 1894 inclusive.

Average of the *maximum* temperatures (annual) for the seven years:

+ 90°.36 Fahrenheit = +32°.42 Centigrade = +25°.94 Reaumur.

Highest temperature in the seven years, namely on June 29, 1891:

+101.° F. = +38°.34 C. = +30°.7 R.

Average of *minimum* temperatures (annual) for seven years, 1888–94:

+31°2 F. = —.45° C. = —.36° R.

Lowest temperature in the seven years, namely on January 14, 1888:

+24°.9 F. = —3°.90 C. = —3.12° R.

Average yearly *range* of temperature — Mean of seven years, 1888–94:

59°.2 F. = 32°.83 C. = 26°.26 R.

Greatest variation in temperature within 24 hours, during the seven years:

38° F. = 21°.10 C. = 17°.0 R.

Average annual rainfall, 1888–94:

27.12 inches = 688.85 mm. (millimeters.)

Maximum rainfall in 24 hours, during 1888–94:

3.62 inches = 91.9 mm.

Maximum rainfall in one hour:

0.5 inch = 12.7 mm.

Most of the rain falls in the months of December, January and February; small amounts in October, November, March and April; little or none in May, June, July, August and September.

Humidity of air at saturation = 100 per cent.

Average, annually for seven yrs. = 82 " "

Highest (often) . . . . . 100 " "

Lowest (seldom) . . . . . 30 " " During prevalence of dry north winds, or northers.

During the months of April to September of each year, the winds are from the west and southwest; i. e. from the Pacific Ocean. They are cool and damp, but seldom have a velocity of more than 15 miles per hour

$$\begin{cases} = 21.14 \text{ kilometers per hour} \\ = 6.71 \text{ meters per second.} \end{cases}$$

In the Springs and Autumns the winds are light and variable, often from the South, warm and rainy.

During the Winters, the same, except that occasionally there is a strong northwest wind, quite cold, or a strong northeast wind, quite hot and dry, commonly called "a norther."

The last two winds, particularly the latter, are the heaviest; the northeast one pouring over the Berkeley hills from the east, and sometimes coming down almost *vertically* upon the roofs of the buildings. Windmills, light roofs and structures have occasionally been blown down by them. Their maximum velocity is 35 to 40 miles per hour (56.32 to 64.36 kilometers per hour).

The ground does not freeze.

There have been but three slight falls of snow in 28 years; each one barely covering the ground, and remaining but a few hours.

There is no freezing of water or other conduits.

All the native and transplanted trees on the University site are evergreens; no deciduous ones, with the exception of a few small trees for experimental purposes are found here.

All varieties grow rapidly and luxuriantly.

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